## Thursday, July 5 16:00PM-18:30PM

Parallel Session 15

Special Session 4	Nonlinear PDEs and Control Theory with Applications Organizer(s): Barbara Kaltenbacher, Irena Lasiecka, Petronela Radu, Lorena Bociu	Location GRC-B
16:00-16:30	Pelin Guven Geredeli (Hacettepe University, Turkey) Global attractors for von Karman plate model with a localized damping	Abstracts p. 19
16:30-17:00	Jing Zhang (University of Virginia, USA) min-max game problem for coupled PDE system and an application to the fluid-structure interaction model	Abstracts p. 22
17:00-17:30	Shitao Liu (University of Helsinki, Finland) Recovering sound spend and initial data for the wave equation by a single measurement	Abstracts p. 20

Special Session <b>7</b>	Recent Progress in the Mathematical Theory of Compressible and Incompressible Fluid Flows Organizer(s): Eduard Feireisl, Sarka Necasova	$\begin{array}{c} \text{Location} \\ \textbf{POI-A} \end{array}$
16:00-16:30	Maria Schonbek (UCSC, USA) Fokker-Planck equations and neuroscience	Abstracts p. 33
16:30-17:00	Sun Yongzhong (Nanjing University, Peoples Rep of China) Regularity Problems Related to Navier-Stokes Equations with Mass Diffusion	Abstracts p. 34

Special Session <b>32</b>	<b>Existence and Multiplicity Results in Elliptic Variational Prob- lems</b> Organizer(s): G. Bonanno, S. Carl, S. A. Marano, D. Motreanu	Location REH-9
16:00-16:30	Loc H Nguyen (École Normale Supérieure, Paris, France) Bernstein-Nagumo conditions and solutions to nonlinear differential inequalities	Abstracts p. 145
16:30-17:00	Anna Maria Candela (Universita' di Bari, Italy) Some existence results for a perturbed asymptotically linear problem	Abstracts p. 142
17:00-17:30	Beatrice B Di Bella (University of Messina, Italy) Variational methods for differential equation with small impulsive effects	Abstracts p. 143
17:30-18:00	Giuseppina Barletta (Università di Reggio Calabria, Italy) Multiplicity results to elliptic problems in $\mathcal{R}$	Abstracts p. 142

Special Session 57	Nonlinear and Dispersive Partial Differential Equations Organizer(s): Netra Khanal, Juan-Ming Yuan	$\begin{array}{c} {\rm Location} \\ {\bf MAG-B} \end{array}$
16:00-16:30	Jyh-Hao Lee (Inst. of Math, Academia Sinica, Taipei, Taiwan) NLS with Quantum Potential ,the Related Reaction-Diffusion Systems and Kaup-Broer system	Abstracts p. 233
16:30-17:00	Jerry L Bona (University of Illinois at Chicago, USA) Dispersive blow-up phenomena	Abstracts p. 232
17:00-17:30	Netra P Khanal (The University of Tampa, USA) Complex-valued Burgers and KdV Burgers equations	Abstracts p. 232

Special Session <b>68</b>	Analysis and Simulations of Nonlinear Systems Organizer(s): Wei Feng, Zhaosheng Feng	$\begin{array}{c} {\rm Location} \\ {\bf MAG-A} \end{array}$
16:00-16:30	Nicoleta Tarfulea (Purdue University Calumet, USA) A Mathematical Model with Time-varying Antiretroviral Therapy for the Treatment of HIV	Abstracts p. 262
16:30-17:00	Shuya Kanagawa (Tokyo City University, Japan) The Nonlinear Schrödinger Equation Created by the Vibrations of an Elastic Plate and its Dimensional Expansion	Abstracts p. 262
17:00-17:30	Zhuosheng Lu (Beijing University of Posts and Telecommunications, Peoples Rep of China) Analytical solutions for the BoitiLeonPempinelli equation	Abstracts p. 262
17:30-18:00	Zhaosheng Feng (University of Texas-Pan American, USA) First Integral of Duffing-van der Pol Oscillator System	Abstracts p. 260

Special Session <b>78</b>	Multiple Time Scale Dynamics with a View Towards Biological Applications Organizer(s): Mathieu Desroches, Maciej Krupa, Alexandre Vidal	Location REH-6
16:00-16:30	Mathieu Desroches (INRIA Paris-Rocquencourt, France) Canards, inflection and excitability threshold	Abstracts p. 291
16:30-17:00	Morten Brons (Technical University of Denmark, Denmark) Canard explosions in the templator model	Abstracts p. 291
17:00-17:30	Enrique Ponce (University of Sevilla, Spain) Canards in slow-fast piecewise-linear planar systems	Abstracts p. 292

Special Session <b>80</b>	Advances in the Numerical Solution of Nonlinear Evolution Equations Organizer(s): Mechthild Thalhammer	Location GRC-A
16:00-16:30	Eric Cances (Ecole des Ponts and INRIA, France) Some mathematical results on Time-Dependent Density Functional Theory	Abstracts p. 299
16:30-17:00	Xia Ji (Chinese Academy of Sciences, Peoples Rep of China) High-order Accurate Runge-Kutta Discontinuous Galerkin Methods for a Two-dimensional Nonlinear Dirac Model	Abstracts p. 300
17:00-17:30	Mechthild M Thalhammer (University if Innsbruck, Austria) Favourable space and time discretisations for low-dimensional nonlinear Schrödinger equations	Abstracts p. 301
17:30-18:00	Shaohua Chen (Cape Breton University, Canada) A Simple Moving Mesh Method for Blow-up Problems	Abstracts p. 299

Contributed Session 04	Modelling and Math Biology Chair(s): Wei Feng and Michael Cowen	Location GRC-H
16:00-16:20	Burcu Adivar (Izmir University of Economics, Turkey) Optimal Vaccine Procurement Strategy for Smallpox Epidemic	Abstracts p. 317
16:20-16:40	Cuiping Li (Beihang University, Peoples Rep of China) Further analysis on high order singularities of LKE model	Abstracts p. 318
16:40-17:00	Youri N Nelson (University of North Carolina Wilmington, USA) Hierarchal Inductive Process Modeling and Analysis	Abstracts p. 318
17:00-17:20	Calistus N Ngonghala (National Institute for Mathematical and Biological Sciences, USA) The importance of stochasticity and safety nets in breaking disease-induced poverty traps	Abstracts p. 319
17:20-17:40	Charlotte Sonck (Ghent University, Belgium) Numerical continuation of equilibria of cell population models with internal cell cycle	Abstracts p. 320